

Listing of Claims:

1-15. Canceled.

16. (Previously Presented) A method of producing a silicon carbide boule having a substantially single polytype, the method comprising:

forcing nucleation sites on a surface of a silicon carbide seed crystal having the substantially single polytype to a predefined pattern; and

growing the silicon carbide boule utilizing physical vapor transport (PVT) so as to provide selective preferential growth of silicon carbide on the silicon carbide seed crystal corresponding to the predefined pattern;

wherein forcing nucleation sites comprises forming a pattern of material other than silicon carbide on a surface of the silicon carbide seed crystal thereby selectively exposing portions of the seed crystal to define the nucleation sites in the selectively exposed portions of the seed crystal;

wherein the pattern of material other than silicon carbide provides a pattern of regions having a reduced sticking coefficient than that of the exposed portions of the seed crystal; and

wherein the silicon carbide boule grows laterally above the material other than silicon carbide.

17. (Original) The method of Claim 16, wherein the pattern comprises stripes on the seed crystal.

18. (Original) The method of Claim 16, wherein the pattern comprises a plurality of posts on the seed crystal.

19. (Previously Presented) The method of Claim 16, wherein the pattern comprises a layer of material having a plurality of openings therein so as to expose portions of the seed crystal.

20. (Original) The method of Claim 19, wherein the openings are substantially circular.

21. (Original) The method of Claim 16, wherein the material other than silicon carbide comprises graphite.

22-56. Canceled.